

Total Quality Management and Reengineering: What is the key factor  
for successful implementation?

José A. Miletti

U. S. Army Soldier, Biological-Chemical Command  
Natick, Massachusetts

Army Management Staff College

Class 98-3

Seminar 10

## Abstract

Since the early 1980s, the concepts of Total Quality Management (TQM) and Reengineering precipitated significant changes in processes and organizational structure of private and government entities. These efforts were inspired by the work of Deming, Juran, Hammer, Champy, and others that advocated changes in methodology, processes, and organizational structure to create an ideal corporate environment for private companies to flourish. Although the work of the aforementioned individuals targeted private corporations, the Department of Defense sought to embrace TQM and reengineering initiatives to optimize processes, and improve products and services. This paper explores the successes and failures of these initiatives and seeks to garner an insight into the key factor for successful implementation.

## Total Quality Management and Reengineering: What is the key factor for successful implementation?

Since the early 1980s, the concepts of Total Quality Management (TQM) and Reengineering precipitated significant changes in processes and organizational structure of private and government entities. These efforts were inspired by the work of Deming, Juran, Hammer, Champy, and others that advocated changes in methodology, processes, and organizational structure to create an ideal corporate environment for private companies to prosper. Although the work of the aforementioned individuals targeted private corporations, the Department of Defense sought to embrace TQM and reengineering initiatives to optimize processes, and improve products and services. This paper explores the successes and failures of these initiatives and seeks to garner an insight into the key factor for successful implementation.

### Total Quality Management

#### Definition

TQM is a management approach based on management practices and statistical measures to improve quality and productivity within an organization. The most influential proponents of TQM are W. Edwards Deming, Joseph Juran, Kaoro Ishikawa, and Philip Crosby. These individuals are responsible for the fundamental theories, methodologies, and practices that are axiomatic to TQM. Deming (1984), the most influential of these theorists and pragmatists, proposed a fourteen points (see Appendix) approach for managers to get “Out of the crisis” of lagging behind international business competition. The cornerstone of Deming’s philosophy is based on the premise that the United States’ industries need to regain their dominance in international commerce by increasing quality and productivity, while reducing the costs associated with generating their products. Sounds simple and obvious, yet the implementations

of the changes necessary to achieve these goals require unprecedented levels of commitment, cultural changes, and financial investments.

#### TQM applications in the private sector

TQM promises to continuously improve the quality of corporate operations toward a goal of perfecting the quality of products and services to enhance the competitive edge and improve customer satisfaction and loyalty. However, in spite of these promises, many corporations have abandoned or reduced their TQM initiatives due to a lack of visible improvement. Dooyoung et al. (1998) reported that, “Despite the potential benefits of TQM articulated by quality gurus and consultants, and despite anecdotal success stories, the high failure rates (60%-67%) quoted in the literature have made many companies believe that TQM has not been delivering on its promise” (p. 10). This high failure rate is not attributed to flawed TQM principles, but to the lack of an effective corporate environment to execute TQM principles appropriately. Leadership, organizational culture, quality infrastructure, and system readiness are commonly cited by the literature as the most significant contributors to the successes or failures of TQM initiatives. However, leadership appears to be the most significant of these factors and some authors (Krumwiede et al., 1998) have conducted significant investigations into the relationships between the personalities of the leaders and TQM implementation. Krumwiede et al.(1998) contended that leaders play a key role in influencing the corporate culture and that their leadership behavior and personality are critical to a successful implementation of TQM. This logic suggests that the leaders are the most influential people in a corporation—their commitment, personality, and vision are central to the focus of the corporate culture.

### TQM applications in the military

The application of TQM in the Department of Defense (DoD) stems from the recognition that quality is a key ingredient in the successful execution of military operations. DoD is concerned that the life and death situations that military personnel could potentially encounter require that all systems function properly and reliably. TQM initiatives promised to deliver notable quality improvements in products and services and to deliver significant cost savings. Cost saving are of particular importance since DoD's funding levels have steadily declined since the collapse of the Soviet Union and the reunification of Germany. Having to "do more with less" is a ubiquitous reminder of the challenges of having to achieve higher efficiencies and perform additional missions with considerable fewer resources than in the past.

Effective applications of TQM initiatives in the military are a challenge because of its unique mission, structure, and regulatory constraints. The monolithic, hierarchical organizational structure of DoD presents some unique challenges, specially its policy of management rotation. The majority of the military command positions are designed as three-year assignments. This policy ensures that top leaders are exposed to a variety of assignments that enables them to "see the big picture" and to advance to positions of greater responsibilities. Motwani, Marinch, Pitman, and Schliker (1998) indicated that this policy is not conducive to successful implementation of TQM since it precludes the consistent support from top management that is necessary to allow TQM principles to flourish. Deming's principle of "constancy of purpose" is lost in the comings and goings of the leaders. Furthermore, Motwani et al. (1998) suggested that "The entrenched middle management of DoD, some of whom are non-believers of TQM, can stall and postpone top management's efforts, knowing they will have a new commander within a short period" (p. 437). This attitude further exacerbates the probability of failure of TQM since

without the support of middle management and garnering of constancy of purpose—TQM couldn't possibly succeed.

The literature is somewhat sketchy regarding success or failure rates of TQM initiatives in DoD, however, Motwani et al. (1998) gleaned at other hindrances that may be responsible for additional failure rates, such as “financial punishment for success” and top-down training philosophy. Financial punishment for success is described as the situation when agencies claim cost savings or efficiency gains and are punished with automatic budget and staff reduction. This policy is counterproductive to TQM initiatives and deters incentives to achieve higher levels of quality and productivity. Furthermore, they stated, “Problems appear in the top-down training philosophy promoted by the Federal Quality Institute. Disruptions in the training process are accentuated by the rapid and continuous turnover of top level managers. As each new manager arrives, with them comes a different set of priorities and ideas on the most effective methods of staff training” (Motwani et al., 1998, p. 438). One can only conclude that given the documented failure rate of TQM implementation in the private sector (60%-67%), DoD could not possibly fair any better and failure rates between 70% and 80% are entirely plausible.

## Reengineering

### Definition

Hammer (1996) defined reengineering as “...the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed.” Just like Deming is considered the guru of TQM, Dr. Michael Hammer is considered the preeminent proponent of business process reengineering. The cornerstone of Hammer's crusade towards improving the performance of corporations is the imperative of improving the processes within a firm. He

subscribes to the theory that the main problem that a corporation faces is the task enhancement approach to improving performance. Hammer (1996) stated that, “The difference between task and process is the difference between part and whole. A task is a unit of work, a business activity normally performed by one person. A process, in contrast, is a related group of tasks that together create a result of value to a customer” (p. 5). The significance of this statement pervades the industrial revolution mentality that a process needed to be broken down into the smallest possible tasks to achieve maximum productivity. Hammer argued that the vestiges of this mentality precludes a company from reaping the quantum leaps in performance improvements available through reengineering efforts, which are based on radical process corrections. He contended that a task is of no value to a customer because a customer is only interested in the final product or result. Only processes yield a final product or service that is of any value to a customer. Hammer espouses a radical departure from the mere accomplishment of simple tasks to a holistic focus on ponderous improvement of value-adding processes. His venue underscores that only processes provide the customer with tangible value. Only profound process improvement will bear the “sweet fruits” that the customers are after. Only process-centered corporations can provide the “fertile ground” required to sustain “fruit-bearing crops”. His vision of the ideal corporation is one that places processes at the center of their cosmos.

#### Reengineering applications in the private sector

The work of Hammer and Champy (1993) placed reengineering at the forefront of management strategies to reinvent corporations into process-centered, customer-focused, revenue producing entities. Reengineering promised to induce enormous reductions in cost or cycle time. Its implementation promised to help aggressive companies stay on top, or transform an organization in the verge of bankruptcy into an effective competitor (Covert, 1997). These

promises didn't go unnoticed and corporations embarked in reengineering efforts designed to curtail costs, streamline processes, empower employees, focus on customers, and establish process-centered organizations.

Business Process Reengineering (BPR)—a.k.a. reengineering—efforts in private corporations have achieved effects that range from enviable success to complete failures. Just like its predecessor—TQM—reengineering doesn't appear to be the panacea that it promised to be. Covert (1997) stated that, "Recent surveys estimate the percentage of BPR failures to be as high as 70%". He concluded that some organizations have placed significant hopes and efforts in BPR only to achieve marginal or negative results. Furthermore, some have only succeeded in destroying the morale and momentum of the organization. However, even with this high failure rate, companies are willing to take the risk because the rewards can be remarkable.

Covert (1997) examined BPR from the standpoint of providing a series of steps for successful implementation. His assessment placed communication as a critical requirement for BPR's. Moreover, he contended that people are the agents of change and for change to happen, people need to understand where the organization is and where is heading. BPR must begin with a communication campaign that allows a vision to be articulated and for people to understand and embrace the changes that are necessary to actualize that vision.

Although, Covert doesn't mention leadership directly, it is apparent that the responsibility of articulating a vision and facilitating changes, rest on the leaders. This may explain why TQM's and BPR's failure rates are so similar (around 70%). Based on these figures and insights culled from the literature, I submit that leadership is the common denominator—leaders are the individuals most responsible for making or breaking TQM or BPR initiatives.



### Reengineering applications in the military

In 1993, the National Performance Review (NPR) was initiated by President Clinton and placed under the direction of Vice President Gore. This initiative called for the “reinvention of government” to transform it into an organization that works better and cost less. The essence of the initiatives and reforms to reinvent government were primarily based on the reengineering principles championed by Hammer. Simply stated, Vice President Gore sought to reinvent government into a more lean and efficient organization by putting customers first, cutting red tape, empowering employees, and getting back to basics.

DoD supported the goals of the NPR and established reinvention initiatives to reduce cost and reengineer processes to achieve higher levels of efficiency. A 1996 report on reinventing the Department of Defense stated, “DoD continues to find ways to reduce its administrative overhead and reengineer its support functions, not only because these changes help in the search for more resources for the priorities of readiness and weapons modernization, but also because these changes are right and necessary for efficient management”. This statement is supported by reports of savings of nearly \$2 billion by eliminating unnecessary military specifications, workforce reductions of 110,000 or 12%, and savings accrued by outsourcing key support functions.

The DoD accomplishments are in stark contrast with the volume of literature and scant success stories reported by the private sector. So what’s the difference? The difference seems to stem from the President’s and the Vice President’s personal involvement and clear articulation of the reinvention vision. Their vision permeated all levels of government, including DoD.

## Conclusion

Successful implementation of TQM and BPR require a strong commitment from managers and leaders to instill quality values and “create constancy of purpose for improvement of products and services” (Deming, 1986, p. 24). TQM and BPR are top-down approaches that demand that the leaders embrace quality and customer focus as their number one priority. Leaders need to provide the perseverance and stamina required to continuously improve and reengineer quality critical processes. Furthermore, Deming (1986) indicated that, “It is not enough that top management commit themselves for life to quality and productivity. They must know what it is that they are committed to—that is, what they must do. These obligations cannot be delegated” (p. 21). Krumwiede, Sheu, and Lavelle (1998) underscored this point by stating that “Top management is ultimately responsible for the culture within the organization and must initiate any transitions of the existing culture” (p. 7). These statements indicate that top management bears the responsibility for infusing the organization with the values, goals, and vision that are key to the success and survival of the corporation. TQM and BPR are bound to fail, if leaders don’t sincerely embrace their core principles and understand the actions that are required to be successful. The linchpin of successful implementation of TQM is directly related to the strength and commitment of the leaders of an organization.

## References

Camisón, C. (1998). Total quality management and cultural change: a model of organizational development. International Journal of Technology Management, 16, Nos. 4/5/6, 479-493.

Chairman of the Joint Chiefs of Staff. (No date). Joint Vision 2010. [Brochure]. Washington, D. C.: Author.

Chairman of the Joint Chiefs of Staff. (1997). National Military Strategy. [Brochure]. Washington, D. C.: Author.

Champy, J. (1996). Reengineering management: the mandate for new leadership. New York: HarperCollins.

Chief of Staff of the Army. (No date). Army Vision 2010. [Brochure]. Washington, D. C.: Author.

Covert, M. (1997). Successfully Performing BPR. [On-line]. Available: <http://www.ozemail.com.au/~visible/papers/BPR.html>

Deming, W. E. (1986). Out of the crisis (2<sup>nd</sup> ed.). Cambridge, Mass.: Massachusetts Institute of Technology.

Dooyoung, S., Kalinowski, J. G., & El-Enein, G. (1998, Winter). Critical implementation issues in total quality management. SAM Advanced Management Journal, 10-14.

Hammer, M., & Champy, J. (1993). Reengineering the corporation: a manifesto for business revolution. New York: HarperCollins.

Hammer, M. (1996). Beyond reengineering: how the process centered organization is changing our work and our lives. New York: HarperCollins.

Harari, O. (1997, January). Ten reasons TQM doesn't work. American Management Association, 38-44.

Houston, A., & Dockstader, S. (1988). A total quality management process improvement model. San Diego: Navy Personnel Research and Development Center. (DTIC No. AD-A202 154)

Ishikawa, K. (1985). What is total quality control? New Jersey: Prentice-Hall.

Juran, J. M. (1964). Managerial breakthrough: a new concept of the manager's job. New York: McGraw-Hill.

Krumwiede, D. W., Chwen, S., & Lavelle, J. (1998, Second quarter). Understanding the relationship of top management personality to TQM implementation. Production and Inventory Management Journal, 6-10.

Lamparter, W. C. (1997, April). Whatever happened to TQM? American Printer, 36-38.

Mansir, B., & Schacht, N. (1989). Total quality management: a guide to implementation. Springfield, Virginia: National Technical Information Service (NTIS No. AD-A 232 070)

Meredith, J., & Mantel, S. (1995) Project management: a managerial approach (3rd ed.). New York: Wiley.

Motwani, J., & Marinch, R. (1998). Implementing TQM in the Department of Defense: current efforts and research agenda. International Journal of Technology Management, 16, Nos. 4/5/6, 433-445.

Novosad, J. J. (1993). Integration of total quality management into senior service school's curriculum. Washington, D.C.: National Defense University. (DTIC No. AD-A277 011)

Ott, M. (1994). Reengineering the Department of Defense: the corporate information management initiative. Monterey, California: Naval Postgraduate School (DTIC No. A 289 636)

Rand, J. F. (1988, July). Learning inspires ownership. Executive Excellence, p. 14.

The White House. (May 1997). A national security strategy for a new century.

[Brochure]. Washington, D. C.: Author.

Thompson, K. R. (1998, Winter). Confronting the paradoxes in a total quality environment. Organizational Dynamics, 62-74.

## Appendix

### Deming's 14 Points

1. "Create constancy of purpose toward improvement of product and service, with the aim to become competitive and to stay in business, and to provide jobs."
2. "Adopt the new philosophy. We are in a new economic age. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change."
3. "Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place."
4. "End the practice of awarding business on the basis of price tag. Instead, minimize total cost. Move toward a single supplier for any one item, on a long-term relationship of loyalty and trust."
5. "Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs."
6. "Institute training on the job."
7. "Institute leadership... The aim of supervision should be to help people and machines and gadgets to do a better job. Supervision of management is in need of overhaul, as well as supervision of production workers."
8. "Drive out fear, so that everyone may work effectively for the company..."
9. "Break down barriers between departments. People in research, design, sales, and production must work as a team, to foresee problems of production and in use that may be encountered with the product or service."
10. "Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity. Such exhortations only create adversarial relationships, as the bulk of

the causes of low quality and low productivity belong to the system and thus lie beyond the power of the work force.”

11a. “Eliminate work standards (quotas) on the factory floor. Substitute leadership.”

b. “Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.”

12a. “Remove barriers that rob the hourly worker of his right to pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality.”

b. “Remove barriers that rob people in management and in engineering of their right to pride of workmanship. This means, *inter alia*, abolishment of the annual or merit rating and of management by objective...”

13. “Institute a vigorous program of education and self-improvement.”

14. “Put everybody in the company to work to accomplish the transformation. The transformation is everybody’s job.”